



APPENDIX I

Pending Claims in U.S. Application Serial No. 09/554,090

13. The process according to claim 24, wherein said nitrogen compound is selected from the group consisting of ammonia, ammonium hydroxide, hydroxylamine, alkanolamines, alkylamines and mixtures thereof.

14. The process according to claim 24, wherein said nitrogen compound is selected from the group consisting of ammonia, ammonium hydroxide, mono-ethanolamine and di-ethanolamine and mixtures thereof.

15. The process according to claim 24, wherein said monomer or monomers are neutralized with said nitrogen compound up to a neutralization level of from 10 to 100%.

16. The process according to claim 24, wherein said monomer or monomers are based on acrylic acid, methacrylic acid or derivatives thereof.

18. The process of claim 24, wherein said comonomer is vinyl acetate.

19. The process according to claim 24, wherein at least one crosslinker based on a bi- or polyfunctional monomer is used in addition to said monomer or monomers.

20. The process according to claim 24, wherein said heating is carried out at a temperature of from 140 to 180°C.

21. The process according to claim 24, wherein said polymer products have a content of residual monomer of less than 50 ppm.

22. The process according to claim 24, wherein said polymer products have a content of residual monomer of less than 30 ppm.

23. The process according to claim 24, wherein said polymer products have a residual content of acrylamide of less than 10 ppm.

24. A process for producing a water-soluble or water-swellaable polymer or copolymer comprising, providing an acid monomer or monomers alone, or with a comonomer or comonomers; partially or completely neutralizing said monomer or monomers with a basic nitrogen compound or compounds; free-radical polymerizing said monomer or monomers alone, or with comonomer or comonomers to form said water-soluble or water-swellaable polymer or copolymer; and subsequently heating said water-soluble or water-swellaable polymer or copolymer at a temperature of from 120 to 240°C.

25. The process according to claim 24, wherein said nitrogen compound is selected from the group consisting of ammonia, ammonium hydroxide, aliphatic mono- and polyamines, cycloaliphatic mono- and polyamines, aromatic mono- and polyamines, heterocyclic amines, hydroxylamine and alkanolamines.

26. The process according to claim 24, wherein said monomer or monomers are acrylic acid, methacrylic acid, maleic acid, fumaric acid, itaconic acid, vinyl sulfonic acid or acrylamidopropanesulfonic acid.

27. The process according to claim 24, wherein said comonomer or comonomers are acrylonitrile, methacrylonitrile, N,N-dimethylacryl amide, vinylpyrrolidone, vinylpyridine, vinyl acetate, hydroxy group-containing esters of polymerizable acids, amino group-containing and ammonium group-containing esters and amides of polymerizable acids, C₁-C₁₀ alcohol esters of acrylic and/or methacrylic acid or esters of acrylic and/or methacrylic acid with styrene or alkylated styrene.

28. The process according to claim 24, wherein said heating is carried out for a time period between 10 minutes and 2 hours.

29. The process according to claim 20, wherein said heating is carried out for a time period between 10 minutes and 1 hour.

30. The process according to claim 24, wherein said heating is carried out for a time period between 10 minutes and 1 hour.

31. The process according to claim 20, wherein said heating is carried out for a time period between 10 minutes and 2 hours.